

SEQUENCE LISTING

<110> TOHOKU TECHNO ARCH CO., LTD.

<120> Novel Diabody-type Bispecific Antibody

<130> AB02035-US

<150> JP 2003-038643

<151> 2003-02-17

<160> 30

<170> PatentIn version 3.1

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29

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gcctggaatg gattggtaac atttatac 27

<210> 14
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gataaatgtt accaatccat tccagc 27

<210> 15
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<223> O h5H-A93T(+)

<400> 15
tattactgca cgcgcatgg c 21

<210> 16
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<223> P h5H-A93T(-)

<400> 16

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<210> 17

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<223> Q h5H-R66KR71V(+)

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attnaagaac aaagtgacca tgacggttga taccagca 38

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<223> S h5H-Y27D(+)

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<223> W h5H-I75SS76RA78V(+)

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 Gln Val Gln Leu Gln Gln Ser Gly Ser Glu Met Ala Arg Pro Gly Ala
 1 5 10 15

tca gtg aag ctg ccc tgc aag gct tct ggc gac aca ttc acc agt tac 96
 Ser Val Lys Leu Pro Cys Lys Ala Ser Gly Asp Thr Phe Thr Ser Tyr
 20 25 30

tgg atg cac tgg gtg aag cag agg cat gga cat ggc cct gag tgg atc 144
 Trp Met His Trp Val Lys Gln Arg His Gly His Gly Pro Glu Trp Ile
 35 40 45

gga aat att tat cca ggt agt ggt act aac tac gct gag aag ttc 192
 Gly Asn Ile Tyr Pro Gly Ser Gly Thr Asn Tyr Ala Glu Lys Phe
 50 55 60

aag aac aag gtc act ctg act gta gac agg tcc tcc cgc aca gtc tac 240
 Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ser Arg Thr Val Tyr
 65 70 75 80

atg cac ctc agc agg ctg aca tct gag gac tct gcg gtc tat tat tgt 288
 Met His Leu Ser Arg Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95

aca aga tcg ggg ggt ccc tac ttc ttt gac tac tgg ggc caa ggc acc 336
 Thr Arg Ser Gly Gly Pro Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

act ctc aca gtc tcc tcc 354
 Thr Leu Thr Val Ser Ser
 115

<210> 26

<211> 342
<212> DNA
<213> Mouse

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<222> (1)..(342)
<223> 5L

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Asp Ile Leu Met Thr Gln Ser Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

gat caa gcc tcc atc tct tgc aga tct agt cag aac att gta cat aat 96
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Ile Val His Asn
20 25 30

aat gga atc acc tat tta gaa tgg tac ctg caa agg cca ggc cag tct 144
Asn Gly Ile Thr Tyr Leu Glu Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

cca aag ctc ctg atc tac aaa gtt tcc gac cga ttt tct ggg gtc cca 192
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro
50 55 60

gac agg ttc agt ggc agt gga tca ggg aca gat ttc aca ctc aag atc 240
Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

agc aga gta gag gct gag gat ctg gga att tat tac tgc ttt caa ggt 288
Ser Arg Val Glu Ala Glu Asp Leu Gly Ile Tyr Tyr Cys Phe Gln Gly
85 90 95

tca cat att cct ccc acg ttc gga ggg ggg acc aag ctg gaa atc aaa 336
Ser His Ile Pro Pro Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

cgt gcg 342
Arg Ala

<210> 27
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<212> DNA
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<222> (1)..(357)

<223> Chimeric Sequence (hOH)

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cag gtg caa ctg gtg cag agc ggc ggt ggc gtt gtg cag ccg ggc cgc
Gln Val Gln Leu Val Gln Ser Gly Gly Val Val Gln Pro Gly Arg 48
1 5 10 15

agc ctg cgc ctg tct tgc aaa gcg agc ggc tat acc ttt acg cgc tat
Ser Leu Arg Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr 96
20 25 30

acc atg cat tgg gtg cgc cag gcg ccg ggc aaa ggt ctg gaa tgg att
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile 144
35 40 45

ggc tat att aac ccg tct cgc ggc tat acc aac tat aat cag aaa gtg
Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val 192
50 55 60

aaa gat cgc ttt acc att agc cgc gat aac tct aaa aac acc ggc ttt
Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe 240
65 70 75 80

ctg cag atg gat agc ctg cgc ccg gaa gat acc ggc gtg tat ttt tgc
Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys 288
85 90 95

gcg cgc tac tat gat gac cat tat agc ctg gat tat tgg ggc cag ggc
Ala Arg Tyr Tyr Asp Asp His Tyr Ser Leu Asp Tyr Trp Gly Gln Gly 336
100 105 110

acc ccg gtg acc gtt agc tcg
Thr Pro Val Thr Val Ser Ser 357
115

<210> 28

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> CDS

<222> (1)..(324)

<223> Chimeric Sequence (hOL)

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gat atc cag atg acc cag agc ccg agc tct ctg agc gcg agc gtg ggc
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly 48

1	5	10	15								
gat	cgc	gtg	acc	att acg tgc agc gcg tct	acg tct gtg	acg tat atg	96				
Asp	Arg	Val	Thr	Ile Thr Cys Ser Ala Ser	Ser Ser Val	Ser Tyr Met					
				20	25	30					
aac	tgg	tac	cag	caa acc cca	ggc aaa gcg	ccg aaa cgc	tggtt att tat	144			
Asn	Trp	Tyr	Gln	Gln Thr Pro	Gly Lys Ala Pro	Lys Arg Trp Ile	Tyr				
				35	40	45					
gat	acc	agc	aaa	ctg gcg	aggc gtg	ccg agc cgc	ttt agc ggc tct	192			
Asp	Thr	Ser	Lys	Leu Ala Ser	Gly Val Pro	Ser Arg Phe	Ser Gly Ser				
				50	55	60					
ggtagc	ggc	acc	gat	tat acg	ttt acc	att agc tct	ctg cag ccg gaa	240			
Gly	Ser	Gly	Thr	Asp	Tyr	Phe	Thr Ile Ser Ser Leu Gln Pro	Glu			
				65	70	75	80				
gat	att	gcg	acc	tat tac	tgc cag	caa tgg	acg tct aac ccg	ttt acc	288		
Asp	Ile	Ala	Thr	Tyr	Tyr	Cys	Gln Gln Trp	Ser Ser Asn Pro	Phe Thr		
				85	90	95					
ttt	ggc	cag	ggt	acc	aaa	ctg cag	att acc cgc	gct	324		
Phe	Gly	Gln	Gly	Thr	Lys	Leu Gln	Ile Thr Arg	Ala			
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Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala			
1		5			10		15				
tcg	gtt	aaa	gtg	agc	tgc	aaa	gcc	tca	96		
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Tyr		
					20	25	30				
tgg	atg	cat	tgg	gtg	cgc	cag	gcc	ccg	ggc	144	
Trp	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	
					35	40	45				

ggt aac att tat ccg ggc agc ggt ggc acc aac tat gcg gaa aaa ttt		192
Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe		
50	55	60
aag aac cgc gtg acc atg acg cgt gat acc agc att tcg acg gcc tat		240
Lys Asn Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr		
65	70	75
atg gaa ctg agc cgc ctg cgt agc gat gac acc gcc gtg tat tac tgc		288
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys		
85	90	95
gcg cgc agt ggc ggt ccg tat ttt ttc gat tac tgg ggc cag ggt acg		336
Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr		
100	105	110
ctg gtt acc gtg agc tcg		354
Leu Val Thr Val Ser Ser		
115		
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<223> Chimeric Sequence (h5L)		
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Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly		
1	5	10
15		
gaa ccg gcg tcg att agc tgc cgc agc tcg cag aac atc gtg cat aat		96
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Ile Val His Asn		
20	25	30
aac ggc att acc tat ctg gaa tgg tat ctg cag aaa ccg ggc caa agc		144
Asn Gly Ile Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser		
35	40	45
ccg cag ctg tta att tat aaa gtg agc gat cgc ttt agc ggc gtg ccg		192
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro		
50	55	60
gat cgc ttt tcg ggc agc ggt agt ggc acc gat ttt acg ctg aaa att		240
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile		

65	70	75	80	
agc cgc gtg gaa gcg gag gat gtt ggc gtg tat tac tgc ttt cag ggc				288
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly				
85	90	95		
agc cat atc ccg cca acc ttt ggc caa ggc acc aaa gtg gaa att aaa				336
Ser His Ile Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys				
100	105	110		
cgc gcg				342
Arg Ala				